## **REMARKS**

Claims 18-20, 23-24, 38-42 are pending and presently stand rejected. In this

Amendment, Applicants have amended claims 18, 19, 23-31, 33, 38, 39, and 41 and cancelled

claim 40. Applicants are <u>not</u> conceding that the subject matter encompassed by claims 8, 19, 23
31, 33, 38-41 prior to this Amendment, are not patentable over the art cited by the Examiner.

Claims 8, 19, 23-31, 33, 38, 39, and 41 were amended and claim 40 was cancelled in this

Amendment solely to facilitate expeditious prosecution. Applicants respectfully reserve the right to pursue claims, including the subject matter encompassed by claims 8, 19, 23-31, 33, 38-41 as presented prior to this Amendment and additional claims in one or more continuing applications.

Applicants respectfully request reconsideration of the rejections set forth in the Office Action based on the following remarks.

## **Drawing Objections**

The Examiner objects to figures 1, 2, 6, 7, 8 because they do not contain descriptive text labels. Figures 1, 2, 6, 7, and 8 have been amended to include descriptive text labels. The amended figures 1, 2, 6, 7 and 8 are attached with this response as replacement sheets.

Accordingly, withdrawal of the objections to the drawings is respectfully requested.

# Claim Rejections- 35 U.S.C. § 112, first paragraph

1. Claims 38-42 stand rejected under 35 U.S.C. 112, first paragraph. The Examiner states that the step of "resetting the final matching information" recited in claim 38 was not described in the specification in such a way as to convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 39-42 are rejected similarly by virtue of their dependence from claim 38.

While applicants generally disagree with the rejections, in the interests of furthering

prosecution of the application, claim 38 has been amended to remove the step of "resetting the final matching information.

2. Claim 40 stands rejected under 35 U.S.C. 112, first paragraph. The Examiner states the step of "keeping each intermediate matching information in the same stage" and the specification of "the final matching information is obtained from a different stage in each time slot" is not described in the specification in such a way as to convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. While applicants generally disagree, in the interests of furthering prosecution of the application, claim 40 has been cancelled without prejudice.

Claims 38-39 and 41-42 are believed to satisfy the requirements of 35 U.S.C. 112, first paragraph. Accordingly, withdrawal of the rejections of under 35 U.S.C. 112, first paragraph is respectfully requested.

### Claim Rejections- 35 U.S.C. § 112, second paragraph

Claims 18-20, 23-34 and 40 stand rejected under 35 U.S.C. 112, second paragraph.

- 1. The Examiner states there is insufficient antecedent basis for the recitation of "the last stage" in claim 18. Applicants have amended claim 18 to replace the recitation of "the last stage" with "a last stage of the plurality of allocation stages".
- 2. The Examiner states there is insufficient antecedent basis for the recitation of "the number of requests that are pending" in claims 23 and 30. Applicants have amended claims 23 and 30 replace the recitation of "the number of requests that are pending" with "a number of the requests that are pending".
- 3. The Examiner states there is insufficient antecedent basis for the recitation of "the position" in claims 24 and 31. Applicants have amended claims 24 and 31 to replace the

recitation of "the position" with "a position".

- 4. The Examiner states there is insufficient antecedent basis for the recitation of "the input" in claim 25. Applicants have amended claim 25 to replace the recitation of "the input" with "an input".
- 5. The Examiner states there is insufficient antecedent basis for the recitation of "The packet switching device" in claim 26 and that it is unclear what is meant by the recitation of "preceding intermediate" in claim 26. Applicants have amended claim 26 to replace the recitation of "The packet switching device" with "The arbitration unit" and to replace "preceding intermediate" with "preceding one of the stages".
- 6. The Examiner states there it is unclear what is meant by the recitation of "preceding intermediate information" in claim 28. Applicants have amended claim 26 to replace the recitation of "preceding intermediate information" with "partial matching information from a preceding stage".
- 7. The Examiner states there is insufficient antecedent basis for the recitation of "the partial matching information" in claim 29. Applicant have amended independent claim 25, from which claim 29 depends, to recite "partial matching information".
- 8. The Examiner states there is insufficient antecedent basis for the recitation of "the number of pending requests" in claim 33. Applicants have amended claim 33 to replace "the number of pending requests" with "a number of the requests that are pending".
- 9. The Examiner states it is unclear how there are multiple "final matching information" in claims 39 and 40 because independent claim 38 appears to specify single final matching information. However, claim 38 only recites one reference to final matching information, namely "the final matching information". As discussed above, claim 40 has been cancelled.

10. The Examiner rejects claim 40 for additional reasons (i.e., recitation of "keeping each intermediate matching information in the same stage is unclear" and insufficient antecedent basis for the recitation of "the same stage".) As discussed above, claim 40 has been cancelled.

Claims 18-20, and 23-34 are believed to satisfy the requirements of 35 U.S.C. 112, second paragraph. Accordingly, withdrawal of the rejections of under 35 U.S.C. 112, first paragraph is respectfully requested.

#### Claim Rejections- 35 U.S.C. § 102

Claims 18-20, 23-34, and 38-42 stand rejected under 35 U.S.C. 103(e) as being anticipated by U.S. Patent to Calamvokis.

Applicants disclosure teaches at least one embodiment for a method and system of transmitting packets where the requests from the same inputs for the same outputs are received in parallel at several consecutive allocation stages in a chain or row of allocation stages and subsequent allocation stages continue the matching of a previous allocation stage for those same inputs and outputs.

For example, assume inputs 0-63 and outputs 0-63. The matching of inputs 0-63 to outputs 0-63 are performed independently at each stage. However, this matching may not complete, meaning that each stage would then have the same partial matching information.

Assume that only 32 matches have completed. Each stage then transfers its partial matching information (e.g., the 32 matches) to a next stage. Next, another matching proceeds in each of the next stages based on the partial matching information (e.g., the last 32 matches) and the same previous requests (e.g., requests from inputs 0-63 for outputs 0-63). If this second matching has completed (e.g., all 64 matches have completed), the final matching information will be present in each of these next stages, including the last stage.

However, <u>Calamvokis</u> teaches (see FIG. 7 and col. 7. lines 26-31) that each scheduler chip X-SCH in a row operates independently on requests from the same inputs <u>but for different</u> outputs and that subsequent schedulers <u>do not</u> continue the matching of a previous scheduler chip. For example, the scheduler chip X-SCH in row 1, column 1 (hereinafter referred to as "X-SCH1") operates on inputs 0-63 and outputs 0-63, while the scheduler chip X-SCH in row 1, column 2 (hereinafter referred to as "X-SCH1") operates on inputs 0-63 and outputs 64-127. Further, <u>Calamvokis</u> states (in col. 7, lines 26-27) that "[s]cheduler chips 120 operate largely independent of each other". While <u>Calamvokis</u> teaches (in col. 7, lines 27-31) that grant information is passed among the scheduler chips 120, the grant information is only used to prevent an input port from being scheduled more than once per time slot. However, <u>Calamvokis</u> fails to disclose using this grant information to continue the matching of previous scheduler chip.

Claims 18, 25, and 38 have been amended to emphasize that subsequent allocation stages continue the matching of a previous stage and that each of these matchings is based on requests from the same inputs for the same outputs.

For example, claim 18 has been amended to essentially recite inter alia, "transferring, by each of the allocation stages, respective partial matching information to a subsequent allocation stage in the plurality of sequential allocation stages", "a sequential subset of the allocation stages … performing a matching based on the requests and the respective partial matching information to generate complete matching information" and "each matching is based on the same input devices and output ports".

Further, claim 25 has been amended to recite inter alia, "each stage is configured to perform a first matching based on the requests to generate partial matching information during a first period, the first matching based on the same input devices and output ports, wherein less

than all of the stages are configured to perform a second matching based on the requests and the

partial matching information to generate final matching information during a second period, the

second matching based on the same input devices and output ports".

Moreover, claim 38 has been amended to recite inter alia, wherein the generating of the

intermediate matching and the final matching information are based on the same inputs ports

and output ports.

For at least the foregoing reasons, claims 18, 25, and 38 are not anticipated by

Calamyokis. Thus, claims 18, 25, and 38 are believed to be patentable over <u>Calamyokis</u>.

Dependent claims 19-20, 23-24, 26-34, 39-39, and 41-42 are believed to be patentable

over Calamvokis at least by virtue of their dependencies from their respective independent

claims.

Withdrawal of the rejections under 35 U.S.C. 102(e) is respectfully requested.

Conclusion

In view of the foregoing remarks, it is respectfully submitted that all the claims now

pending in the application are in condition for allowance. Early and favorable reconsideration is

respectfully requested.

Dated: 6/20/08

Respectfully submitted,

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